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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,436	01/22/2004	Dae-Ho Choo	8071-11 CON (OPP 040206 U	5186
22150	7590	05/04/2006	EXAMINER	
F. CHAU & ASSOCIATES, LLC 130 WOODBURY ROAD WOODBURY, NY 11797			GRAY, LINDA LAMEY	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,436

Applicant(s)

CHOO ET AL.

Examiner

Linda L. Gray

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2-8-06 and 3-30-06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 12-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,710,843 to Choo et al. in view of Takahara et al. (US 5,426,522).

Claim 12, claim 1 of Choo et al. teach an in-line system for fabricating a liquid crystal display including the following:

- a)** a spacer dispensing unit for dispensing spacers onto at least one of first and second substrates with a plurality of liquid crystal display cell regions,
- b)** a sealer coating unit for coating a sealer onto the first substrate,
- c)** a liquid crystal injection unit for dropping liquid crystal onto the first substrate coater with a sealer,
- d)** an assembly unit for assembling the first substrate with the second substrate, and
- e)** a sealer hardening unit for hardening the sealer interposed between the first and second substrate to thereby join the first and the second substrate.

Claim 12, claims 1-6 to Choo et al. do not teach that the sealer hardening unit seals by irradiating ultraviolet rays.

Takahara et al. teach bonding substrates 31 and 32 together as part of a process to make a liquid crystal display. First sealant 11 is applied to one of the substrates 31 or 32, the substrates 31 and 32 are joined, and then the resin is actively hardened by irradiating ultraviolet rays (c 2, L 39-61).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in claim 12 that the sealer hardening unit seals by irradiating ultraviolet rays as is conventional in the art (see Takahara et al.) in order to harden the sealer such that the first and second substrates are sealed completely.

Claim 13, claim 1 to Choo et al. teach a substrate cutting unit for cutting the first and the second substrates along cutting lines through illuminating a laser beam along the cutting lines such that the first and the second substrates are severed into the liquid crystal display cell regions.

Claim 14, claims 1-2 to Choo et al. teach that the substrate cutting unit includes a laser for pre-heating the first and second substrates along the cutting lines, a laser transporter for fixing or transporting the laser, and a cooling agent sprayer unit for cooling the pre-heated first and second substrates along the cutting lines.

Claim 15, claim 3 to Choo et al. teach that the substrate cutting unit includes a substrate transporter for fixing, rotating, or transporting the first and second substrates.

Claim 16, claim 4 to Choo et al. teach that the cooling agent spraying unit is mounted on the laser transporter.

Claim 17, claim 5 to Choo et al. teach that the spacer dispenser unit, the sealer coating unit, the liquid crystal injection unit, the assembly unit, the sealer hardening unit, and the substrate cutting unit are designed to be in-line.

Claim 18, claim 6 to Choo et al. teach first and second alignment units for aligning the first and second substrates with each other before the assembling, and a heat treatment unit for heat-treating the liquid crystal.

3. Claims 19-22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7-11 of U.S. Patent No. 6,710,843 to Choo et al.

Claim 19, claim 7 to Choo et al. fully anticipates claim 19 because claim 7 to Choo et al. teach a method of fabricating a liquid crystal display including the following steps:

- a) dispensing spacers onto at least one of first and second substrates with a plurality of liquid crystal display cell regions,
- b) coating a sealer onto the first substrate,
- c) dropping a liquid crystal onto the first substrate,
- d) assembling the first and second substrates to join with each other,
- e) hardening the sealer interposed between the first and the second substrates, and
- f) cutting the first and the second substrates along cutting lines using a laser such that the first and the second substrates are severed into a plurality of liquid crystal display cell regions.

Claim 20, claims 7-8 to Choo et al. fully anticipate claim 20 because claims 7-8 to Choo et al. teach that the method includes pre-heating the first and the second substrates along the cutting lines through illuminating a laser beam along the cutting lines, cooling the first and the second substrates along the cutting lines through spraying a cooling agent along the cutting lines to thereby form a crack, and propagating the crack along the cutting lines.

Claim 21, claim 9 to Choo et al. fully anticipates claim 21 because claim 9 to Choo et al. teach an in-line system for fabricating a liquid crystal display including the following:

- a) a sealer coating unit for coating a sealer onto a first substrate,
- b) a sealer hardening unit for hardening the sealer for joining the first and second substrate with a gap therebetween,
- c) means for injecting liquid crystal onto the gap, and
- d) means for cutting the first and second substrates along cutting lines such that the first and the second substrates are severed into the liquid crystal display cell regions.

Claim 22, claims 9-10 to Choo et al. fully anticipate claim 22 because claims 9-10 to Choo et al. teach that the means for cutting includes a laser for pre-heating the first and the second

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substrates along the cutting lines, a laser transporter for fixing or transporting the laser, and a cooling agent spraying unit for cooling the pre-heated first and second substrates along the cutting lines.

Comments

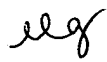
4. Applicant's comment filed 2-8-06 and 3-30-06 have been fully considered. The rejection of claims 21-22 under 35 USC 112, first and second paragraphs, have been removed in view of the amendments to claim 21. The double patenting rejections remain with applicant's comments on pages 7-8 of the response being noted. The rejections under 35 USC 103 are removed in view of the submission of and English translation of the certified copy of '761 application, see pages 8-9 of applicant's response.

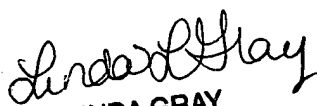
Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Gray whose telephone number is (571) 272-1228. The examiner can normally be reached Monday-Friday from 9:00 am to 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla, can be reached at (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

llg 
May 1, 2006


LINDA GRAY
PRIMARY EXAMINER